

REPLACEMENT SHEET

**10/567480**  
**AP 20 Rec'd PCT/PTO 07 FEB 2006**

1. (Cancel)
2. An upper body positioning device connectable to a couch of a radiation therapy treatment system, the upper body positioning device comprising:
  - a frame;
  - a projection extending from one end of the frame, the projection defining a pivot point;
  - a first assembly connectable to a second end of the frame, the first assembly operable to provide a first range of motion of the frame relative to the couch about the pivot point; and
  - a second assembly connectable to the first assembly, the second assembly operable to provide a second range of motion of the frame relative to the couch about the pivot point.
3. The upper body positioning device of claim 2 wherein the projection is generally spherical-shaped.
4. The upper body positioning device of claim 2 wherein the projection is generally semi-spherical-shaped.
5. The upper body positioning device of claim 2 wherein the first range of motion comprises one of a pitch rotation, a roll rotation, and a yaw rotation and the second range of motion comprises one of a pitch rotation, a roll rotation, and a yaw rotation.
6. The upper body positioning device of claim 2 wherein the first range of motion is different than the second range of motion.
7. The upper body positioning device of claim 2 wherein the first assembly comprises a track and a carriage connected to the frame, the carriage adapted to move along the track.

## REPLACEMENT SHEET

8. The upper body positioning device of claim 7 wherein the track is oriented in a generally vertical plane, the track being arcuately-shaped, the first assembly providing a pitch movement of the frame relative to the couch as the carriage moves along the arcuately-shaped track in a generally vertical direction.
9. The upper body positioning device of claim 2 wherein the second assembly comprises a track and a carriage adapted to move along the track.
10. The upper body positioning device of claim 9 wherein the track is oriented in a generally horizontal plane, the track being arcuately-shaped, the second assembly providing yaw movement of the frame relative to the couch as the carriage moves along the arcuately-shaped track in a generally horizontal direction.
11. The upper body positioning device of claim 2 further comprising a third assembly connectable to the second end of the frame, the third assembly operable to provide a third range of motion of the frame relative to the couch about the pivot point.
12. The upper body positioning device of claim 11 wherein the third range of motion comprises one of a pitch rotation, a roll rotation, and a yaw rotation.
13. The upper body positioning device of claim 11 wherein the third range of motion is different than the first range of motion.
14. The upper body positioning device of claim 11 wherein the second assembly comprises a track and a carriage adapted to move in a generally horizontal direction along the track, and wherein the third assembly comprises a shaft having a first end connectable to the frame and a second end connectable to carriage of the second assembly, the second end of the shaft adapted to be pivotable with respect to the carriage of the second assembly.

## REPLACEMENT SHEET

15. The upper body positioning device of claim 14 wherein the third assembly provides roll movement of the frame relative to the couch as the second end of the shaft pivots with respect to the carriage of the second assembly.

16. A positioning device comprising:  
a frame adapted to support a body part, the frame having a first axis;  
a first assembly adapted to move the body part about the first axis;  
a second assembly adapted to move the body part about a second axis oriented perpendicular with respect to the first axis; and  
a third assembly adapted to move the body part about a third axis oriented perpendicular with respect to the first axis and the second axis.

17. The positioning device of claim 16 wherein the first axis, the second axis, and the third axis intersect at a common point.

18. The positioning device of claim 16 further comprising a component extending from one end of the frame, the component defining a pivot point, and wherein the first assembly is operable to provide pitch movement of the body part about the pivot point, and wherein the second assembly is operable to provide yaw movement of the body part about the pivot point, and wherein the third assembly is operable to provide roll movement of the body part about the pivot point.

19. A positioning device connectable to a couch of a radiation therapy treatment system, the positioning device comprising:  
a frame; and  
a component extending from the frame, the component defining a pivot point, the component adapted to provide nearly simultaneously pitch movement, yaw movement, and roll movement of the frame relative to the couch about the pivot point.

REPLACEMENT SHEET

20. The positioning device of claim 19 further comprising a first assembly connectable to the frame and adapted to provide the pitch movement of the frame relative to the couch about the pivot point, and further comprising a second assembly connectable to the first assembly and adapted to provide the yaw movement of the frame relative to the couch about the pivot point, and further comprising a third assembly connectable to the first assembly and the second assembly and adapted to provide the roll movement of the frame relative to the couch about the pivot point.

21. The positioning device of claim 19 wherein the component is generally spherical-shaped.

T:\clienta\013869\9006\A1314487.1